EPA Region 5 Records Ctr.
209708

Five-Year Review Report

Second Five-Year Review Report for the Laskin/ Poplar Oil Company Superfund Site Ashtabula County, Ohio

May 2004

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Date:

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Table of Contents

Tables

Figures

List of Acronyms

ARARs	Applicable or Relevant and Appropriate Requirements
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIC	Community Involvement Coordinator
COCs	Contaminants of Concern
EMI	Engineering Management, Incorporated
EPA	United States Environmental Protection Agency
CFR	Code of Federal Regulations
ICs	Institutional Controls
IMMP	Inspection, Maintenance, and Monitoring Plan
MCLs	Maximum Contamination Levels
NCP	National Contingency Plan
NPL	National Priorities List
OAC	Ohio Administrative Code
Ohio EPA	Ohio Environmental Protection Agency
O&M	Operation and Maintenance
PCBs	Polychlorinated biphenyls
PRPs	Potentially Responsible Parties
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act

List of Acronyms, cont.

RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SROU	Source Removal Operable Unit
SVOC	Semi-volatile Organic Compound
TBC	To Be Considered
UAO	Unilateral Administrative Order

Executive Summary

The remedy for the Laskin/Poplar Oil Company Superfund Site in Ashtabula County, Ohio included construction of a multi-layer cap to cover soils and delisted ash which had a reported total Hazard Index greater than one, or a reported potential excess life-time cancer risk greater than one-in-one-million ($1x10^{-6}$); construction of groundwater diversion trenches around the area to be capped, construction of slurry trench cut-off walls around the area to be capped; grading of the pit, tank, pond, and north slope areas to facilitate the installation of the cap; excavation of buried ravine area and backfilling with low permeability fill; filling of the fresh water pond area with clean off-site fill; stabilization and disposal of residuals on-site.

The trigger for this Five-Year Review is the completion of the last Five-Year Review on June 2, 1999.

The assessment of this Five-Year Review found that the remedy at the Laskin/Poplar Oil Company Site is protective of human health and the environment because threats at the Site have been addressed through capping of contaminated soil, maintaining groundwater levels below the unweathered shale, installation of fencing and warning signs, and implementation of institutional controls.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: Laskin/Poplar Oil Company Superfund Site		
EPA ID *(from WasteLAN)*: OHD061722211		
Region: 5	**State:** OH	**City/County:** Ashtabula County
SITE STATUS		
NPL status: ☐ Final ☒ Deleted ☐ Other (specify)		
Remediation status (choose all that apply): ☐ Under Construction ☐ Operating ☒ Complete		
Multiple Operable Units (OU)? ☒ YES ☐ NO	**Construction completion date:** September 23, 1993	
Has site been put into reuse? ☐ YES ☒ NO		
REVIEW STATUS		
Lead agency: ☒ EPA ☐ State ☐ Tribe ☐ Other Federal Agency		
Author name: Patrick Hamblin		
Author title: Remedial Project Manager	**Author affiliation:** U.S. EPA, Region 5	
Review period: January, 2004 through April, 2004		
Date of site inspection: April 5, 2004		
Type of review: ☒ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only ☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion)		
Review number: ☐ 1 (first) ☒ 2 (second) ☐ 3 (third) ☐ Other (specify)		
Triggering action: ☐ Actual RA On-site Construction at OU #___ ☐ Actual RA Start at OU# ___ ☐ Construction Completion ☒ Previous Five-Year Review Report ☐ Other (specify)		
Triggering action date *(from WasteLAN)*: June 2, 1999		
Due date *(five years after triggering action date)*: June 2, 2004		

Five-Year Review Summary Form, cont'd.

Issues:

Animal burrows present on-site.

Slope instability facing Cemetery Creek, outside of cap and fence area.

Warning signs on site fencing are faded.

Fabric privacy fencing has been partially removed.

Recommendations and Follow-up Actions:

Continue to remove animal burrows.

Implement slope investigation work plan to determine extent and depth of slope instability.

Replace warning signs.

Remove or replace fabric privacy fencing, or replace with more permanent plastic privacy fencing.

Protectiveness Statement:

The remedy at the Laskin/Poplar Oil Company Site is protective of human health and the environment because threats at the Site have been addressed through capping of contaminated soil, maintaining groundwater levels below the unweathered shale, installation of fencing and warning signs, and implementation of institutional controls.

Other Comments:

None.

LASKIN/POPLAR OIL COMPANY SUPERFUND SITE
ASHTABULA COUNTY, OHIO
FIVE-YEAR REVIEW REPORT

I. INTRODUCTION

The purpose of the Five-Year Review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports. In addition, five-year review reports identify issues found during the review, if any, and identify recommendations to address them.

The United States Environmental Protection Agency (EPA) is preparing this Five-Year Review Report pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

EPA interpreted this requirement further in the NCP. 40 CFR §300.430(f)(4)(ii) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

EPA, Region 5, conducted the Five-Year Review of the remedy implemented at the Laskin/Poplar Oil Company Superfund Site in Ashtabula County, Ohio. This review was conducted by EPA in consultation with Ohio EPA from January, 2004 through April, 2004. This report documents the results of the review.

This is the second Five-Year Review for the Laskin/Poplar Oil Company Superfund Site. The triggering action for this statutory review is the completion of the first Five-Year Review on June 2, 1999. This Five-Year Review is required because hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure.

II. SITE CHRONOLOGY

Table 1: Chronology of Site Events

EVENT	*DATE*
Greenhouses receives waste oils	1960s-1970s (est.)
EPA conducts emergency actions at the Site	1981 - 1983
EPA proposes Site for National Priorities List (NPL)	12/30/1982
Final Listing on EPA NPL	9/8/1983
Initial Record of Decision (ROD) remedial selection for source removal	8/9/1984
PRPs conduct removal actions	1985 - 1987
Record of Decision (ROD) issued for source removal	9/30/1987
EPA issues Order V-W-88-C-002 for source removal	2/26/1988
Overall Remedial Investigation / Feasibility Study conducted	7/27/1983 - 6/29/1989
Record of Decision (ROD) issued for overall Site remediation	6/29/1989
Consent decree 4:90 CV0483 entered	9/1990
Remedial Design - final remedy including landfill cap	7/27/1990 - 3/23/1992
Remedial Action - source removal	6/27/1991 - 11/22/1992
Final Remedial Action - final remedy including landfill cap	3/23/1992- 4/21/1994
Final inspection of the remedial action	9/20/1993
Preliminary Close Out Report signed	9/23/1993
Inspection, Maintenance, and Monitoring Plan (IMMP) developed	4/1994
First Five Year Review finalized	6/2/1999
EPA agrees to reduction in monitoring requirements in IMMP plan	6/30/1999
Deletion of Site from NPL	9/5/2000

III. BACKGROUND

Physical Characteristics

The Laskin/Poplar Oil Company Site (the "Site") is approximately 50 miles east-northeast of Cleveland, in Ashtabula County, Jefferson Township, Ohio west of the village of Jefferson (approximate population 3,400). The Site is located southwest of the intersection of State Route 307 and Poplar Street, and immediately south of Cemetery Creek **(FIGURE 1)**.

The Laskin/Poplar Oil Company Site consists of a 9.0 acre triangular shaped parcel which at one time contained the residence of the property owner (Mr. Alvin Laskin), a greenhouse complex, a boiler house, miscellaneous small buildings and sheds, and numerous tanks, ponds and pits.

Land and Resource Use

The land area surrounding the Site can be characterized as predominantly recreational and residential. Cemetery Creek lies directly north of the Site in a wooded ravine. Several residential properties are located directly north of Cemetery Creek along State Route 307. Water for all homes within 0.5 mile of the Site is obtained from the Consumer's Ohio Water Company. The western portion of the Site is bordered by several softball fields and a wooded area which extends from north of the Site. Poplar Street is located on the eastern border of the Site, while the south is bordered by open fields and the Ashtabula County fairgrounds. Although most of the recreational facilities are limited to use during the summer, a certain amount of activity occurs year round, especially in relation to operation of the racetrack and horse stable located at the fairgrounds.

History of Contamination

The greenhouses on the Laskin/Poplar Oil Company Site were in operation for approximately 80 years, beginning in the early 1890s. In the 1950s, boilers were installed to heat the greenhouses. Storage tanks and pits were installed during the 1960s to store the oil that fired the boilers, and the Poplar Oil Company accepted waste oil during the 1960s and 1970s. In 1977, EPA and Ohio EPA identified polychlorinated biphenyls (PCBs) in the waste oil.

Waste oils were also used for oiling gravel roads in Ashtabula County as a dust control measure. As part of the Remedial Investigation (RI), samples were collected from local roads to determine the level of contamination that may exist in those areas.

Initial Response

In early 1981, EPA conducted an investigation at the Site and detected PCBs in groundwater and soils. In 1981 and 1982, the EPA performed several emergency actions at the Site. The emergency actions included draining and regrading two ponds which had been used for oil separation; diversion

of surface runoff to a retention pond to prevent flooding; removal of 302,000 gallons of waste oil, which was taken to an off-site incinerator; treatment and off-site disposal of 430,000 gallons of contaminated surface water; and solidification of 205,000 gallons of sludge.

In 1983, the Site was placed on the National Priorities List (NPL) of uncontrolled hazardous waste sites. Initial RI activities were conducted from December 1983 to November 1984, and included the installation of monitoring wells, and sampling of soils, groundwater, sediment, oiled road surfaces, surface water, boiler and smokestack.

During the winter of 1985-86, the potentially responsible parties (PRPs) removed approximately 250,000 gallons of waste oil and wastewater, in response to an administrative order issued in August 1984.

A September 30, 1987 Record of Decision (ROD) selected on-site incineration of oils, sludges, and visibly contaminated source soils as the remedy for the Source Removal Operable Unit (SROU) at the Site. EPA issued Administrative Order V-W-88-C-002 to 39 PRPs on February 26, 1988, requiring that a Source Removal remedial action be performed. Twenty of the companies responded to the order and initiated a remedial design effort.

An expanded RI was conducted in fall and winter of 1987-88. Work included installation of monitoring wells, geophysical studies, bathymetric surveys, along with additional sampling of groundwater, surface water, soils, and sediments.

A feasibility study for the complete remediation at the Site was finalized on April 7, 1989. The feasibility study presented an array of alternatives to address the overall Site contamination. Eight alternatives for the Laskin/Poplar Oil Company Site were evaluated by the EPA. A ROD for the Site was issued on June 29, 1989, which documented EPA's preferred alternative for the complete Site remediation.

Basis for Taking Action

The RI Report and RODs identified areas of concern on the Site, including areas of disposed hazardous waste, contaminated soils, sediments, groundwater, structures and debris. The reports documented the presence of volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), polycyclic aromatic hydrocarbons (PAHs), PCBs, pesticides, and inorganic compounds at the Site. All known contaminants at the Site with environmental criteria or toxicity values were selected for evaluation in the health assessment and treated as potential contaminants of concern (COCs) (**TABLE 2**). The primary potential risks associated with the Site included the potential for future consumption of groundwater underlying the Site and ingestion of on-site soils with PCBs, PAHs and inorganic compounds.

IV. REMEDIAL ACTIONS

Remedy Selection

The 1987 ROD for Source Removal required on-site incineration of oils, sludges, and visibly contaminated source soils at the Site.

The objectives of the 1989 ROD were as follows:

- To control a public health risk through direct contact with and incidental ingestion or inhalation of contaminated soils;
- To control potential long term risk to groundwater from residual constituents in the soils; and
- To control potential long-term risk associated with surface water runoff.

The major components of the Final Remedial Action included:

- Construction of groundwater diversion trenches around the area to be capped;
- Construction of slurry trench cut-off walls around the area to be capped;
- Grading of the pit, tank, pond, and north slope areas to facilitate the installation of the cap;
- Excavation of the buried ravine area and backfilling with low permeability fill;
- Filling of the fresh water pond area with clean off-site fill;
- Construction of a multi-layer cap to cover the delisted ash and any soils which have a reported Total Hazard Index greater than one or a reported potential excess life-time cancer risk greater than one-in-one-million ($1x10^{-6}$);
- Stabilization and disposal of residuals on-site.

Remedy Implementation

After the ROD was issued, Consent Decree negotiations for the design and implementation of both the Source Removal and the Final Remedial Action took place between EPA and a group of PRPs. The requirements of the Source Removal Administrative Order were included in this Consent Decree. In addition, several elements of the final remedy were incorporated into the Source Removal

Actions by agreement between the EPA and the Settling Defendants. The Source Removal project was essentially completed in December 1992. The Final Remedial Action involved construction of a groundwater diversion trench, slurry walls, and low permeability cap and general site grading, and major construction activities were completed on September 15, 1993.

Waste oils, wastewater and sludges were collected and consolidated with like material in pits or frac tanks that were brought on-site. A total of 6,002 gallons of oils were recovered and eventually processed for thermal destruction. The on-site wastewater treatment plant processed a total of 164,360 gallons of wastewater. Sludges were collected and segregated into pumpable and non-pumpable sludges. A total of 280,509 gallons of pumpable sludges were collected, mixed and screened prior to being incinerated. A total of 2,585 cubic yards of pump non-pumpable sludges were collected and incinerated.

Following removal of waste materials, a total of thirty-three (33) steel tanks were decontaminated and sized to manageable scrap and sent to the metal relcaimer for recycling. Two (2) fiberglass tanks used for fuel oil storage were decontaminated, shredded and disposed of on-site in an area to be under the final remedy cap.

A total of two hundred and twenty (220) drums were collected and the contents determined. Liquids were removed for incineration or water treatment. All solid materials, including protective clothing, were shredded along with the drums and processed through the incinerator for thermal destruction.

The boiler house remediation and demolition consisted of a group of tasks conducted over a period of approximately one year. Asbestos-contaminated material that was not directly exposed to combustion gases was removed and properly disposed of in an appropriate landfill. The remaining asbestos-contaminated material was analyzed for dioxin, was determined to have dioxin contamination of less than the action level of 1 ppb.

Four (4) steam generating boilers were dismantled and disposed of. Boiler house soils were removed to a depth of twelve inches and incinerated. Sampling of the remaining soil was conducted to confirm that remediation goal of 1 ppb had been achieved. The boiler house stack was demolished using controlled explosives, and the resulting brick rubble was crushed and incinerated. The boiler house structure proper, including concrete floor sections, was shredding and incinerated, except for a few oversized members. Large pieces were decontaminated and disposed of off-site to a metals reclaimer.

Once analytical results demonstrated that objectives had been met for on-site disposal, ash was moved to a permanent ash storage area on an asphalt pad in the former freshwater pond basin, until such time that backfilling requirements developed. Backfilling the Site with ash started upon completion of Pit #4 demolition and receipt of the Ohio solid waste waiver.

Remedial activities at the Laskin/Poplar Oil Company Site were completed with the construction of a groundwater diversion system and a low permeability cap (**FIGURE 2**). The cap at the

Laskin/Poplar Oil Site covers the part of the Site where the soil has an estimated excess lifetime cancer risk greater than $1 \times 10^{(-6)}$ or a Total Hazard Index greater than 1.0. A diversion trench was constructed up-gradient of the capped area, in order to intercept all groundwater flow in the shallow aquifer moving northward toward the Site, and a drain in the trench conducts the intercepted flow directly to Cemetery Creek. Treatment of the diverted water was not required because upgradient groundwater is not contaminated. Although the trench and cap effectively de-watered the Site, groundwater and surface water monitoring were initially conducted as part of the Inspection, Maintenance, and Monitoring Plan (IMMP) because hazardous substances were present on-site. Currently, groundwater levels are monitored in order to determine if the Site remains dewatered.

Restrictions are in place at the Laskin/Poplar Oil Company Site to maintain the integrity and performance of the remedial alternative. The restrictions imposed prohibit Site use, land development, and groundwater use. The Site is completely encompassed by a chain link fence to prevent any interference or vandalism at the Site. Although there is essentially no groundwater available for any purpose at the Site due to the de-watering process, groundwater underlying the Site should not be used for drinking water. Currently there are no residential wells located on the strip of land between the Site and Cemetery Creek.

Operation and Maintenance (O&M)

The Consent Decree identified the remedial action to be implemented at the Laskin/Poplar Oil Company Site, and required that an Inspection, Maintenance and Monitoring Plan (IMMP) be prepared to describe the actions necessary to inspect and monitor the integrity of the cap and groundwater diversion system. The overall objectives of IMMP are to verify that the Remedial Action is continuing to perform as expected, and to maintain the integrity of the Remedial Action.

Deliverables and tasks associated with the IMMP include Site Inspection Reports and quarterly Financial Reports as well as regular inspections and maintenance of the Site. Site Inspection Reports include summaries of observations made during inspections and a photo-log of photos taken during the inspection. Site Inspection Reports evaluate the following areas: cap and cap area inspection; critical cap boundary areas; security fence inspection; groundwater monitoring network inspection and the groundwater diversion trench system. The current objective of the groundwater level monitoring program is to ensure that the groundwater level in the cap area is lowered to the top of the unweathered shale or, if this is not achieved, to ensure that groundwater concentrations do not exceed the Safe Drinking Water Act Maximum Contamination Levels (MCLs).

Monitoring and inspection schedules are discussed in the IMMP, the inspection schedule is presented in **TABLE 3**. The IMMP provided for quarterly monitoring in 1994-1996, semiannual monitoring in 1997 and 1998, and annual monitoring in subsequent years. Each monitoring event included water level measurements, and groundwater and surface water sampling. The IMMP indicated that the Laskin Poplar Final Remediation Trust could petition EPA to reduce the sampling schedule after 1998. From 1994 to 1999, monitoring data demonstrated that the remedial action had been effective in lowering the groundwater to below the top of the unweathered shale, thereby preventing impacts

to groundwater and surface water. Therefore, it appeared that the cover, trench and slurry walls were successful in isolating the contaminated soil on the Site from the groundwater and Cemetery Creek. Accordingly, a 1999 request from the Laskin Final Remediation Trust to revise the monitoring schedule was granted. The current monitoring schedule is indicated in **TABLE 4.**

V. PROGRESS SINCE THE LAST FIVE-YEAR REVIEW

This is the second Five-Year Review for the Site. The protectiveness statement from the Five-Year Review conducted in 1999 indicated: "Goals set forth in the Record of Decision and the Inspection, Maintenance and Monitoring Plan are being met. Continued monitoring and maintenance of the Site is necessary to assure that these goals continue to be met. The remedies selected for this Site remain protective of human health and the environment."

The following issues were noted in the previous Five-Year Review:

- Problems associated with the burrowing animals on the Site appears to be ongoing. The continued removal of these animals and repairs to damaged areas of the cap are required to ensure the integrity of the cap.

- Slope stability, especially the northwest slope, was a point of concern early in O&M. Slopes of concern appear to have stabilized over the past few years. Continued slope inspections during site visits will insure any slope stability problems will be observed and addressed.

- The fencing, gates and access road appear to be in good condition. As noted in several Inspection Reports, approximately 20% of the fence fabric has been removed due to wind damage and additional sections will be blown off soon. It is recommended that these damaged sections be removed prior to being blown off by wind conditions.

In general, these issues have continued to be addressed through implementation of the IMMP. The presence of burrowing animals continues to require routine attention, and a Slope Investigation Work Plan has been proposed in order to further assess potential slope stability problems.

VI. FIVE-YEAR REVIEW PROCESS

Administrative Components

The EPA Remedial Project Manager (RPM), Patrick Hamblin, notified Ohio EPA and the PRPs' Project Coordinator (Engineering Management, Incorporated (EMI)) of the initiation of the five-year review process in the fall of 2003. The EPA RPM headed the five-year review team, and was assisted by Ohio EPA (primary contact for the review is Andrew Kocher.)

The review schedule included the following components:

- Community Notification;
- Document Review;
- Data Review;
- Site Inspection;
- Interviews; and
- Five-Year Review Report Development and Review.

Community Notification

In December, 2003, the RPM discussed the need to notify the community that the five-year review process was underway with the EPA Community Involvement Coordinator (CIC), Sue Pastor. In February, 2004, the EPA Office of Public Affairs placed an ad in the local newspapers announcing that the Five-Year Review was in progress and requesting that any interested parties contact EPA for more information. Since the ad was issued, no member of the community voiced an interest in the Five-Year Review.

Document Review

This Five-Year Review consisted of a review of relevant documents including the 1987 and 1989 ROD, the IMMP and Site Inspection Reports # 29 (August 1999) through Site Inspection Report #38 (January 2004).

Data Review

Groundwater Monitoring

Under the revised monitoring schedule, water level measurements are taken once per year at selected peizometers (see **TABLE 5**). If groundwater levels are detected above the unweathered shale, then additional groundwater and surface water samples are to be collected for chemical analysis within 120 days.

The results of the recent water level measurements are presented in **TABLE 5,** and historic water level measurements are presented in **TABLE 6**. Based on these results, water levels remained under the unweathered shale, and no groundwater or surface water samples were required to be collected.

Site Inspection

EPA and Ohio EPA conducted a Site inspection on April 5, 2004. EMI and three representatives from Parsons accompanied the regulatory team in the inspection. The purpose of the inspection was to assess the protectiveness of the remedy, including the condition of fencing to restrict access, the integrity of the cap, and the effectiveness of land use restrictions. The area of slope instability

outside the cap was also observed and the draft Slope Investigation Work Plan to study this area was discussed.

The following statements summarize the main topics covered during the inspection:

- The waste cap appeared to be in good physical condition. Burrows were evident, which will likely require continued, routine maintenance to address.

- An area of erosion and potential slope instability to the north of the cap and fence was observed. This area is located along the steep slope facing Cemetery Creek, immediately outside of the northern fence. A draft work plan to investigate this area has been prepared by the PRP. Due to the location of the slope instability, temporary removal of fencing and regrading will be required in the area prior to installing an inclinometer, peizometers, and surface monuments as part of the slope investigation work plan.

- Site fencing was intact and appeared to be in good condition. Fabric covering the fencing had partially blown off, and warning signs were legible but very faded. Similar conditions were noted in the previous Five-Year Review.

Interviews

Since construction completion, there has been low community interest at this Site. This statement is supported by the minimal contact from the community with EPA in recent years, and no community members responded to the five-year review ad that invited readers to contact the CIC for more information on the five-year review process. Therefore, the CIC and RPM decided not to conduct interviews of local residents.

VII. TECHNICAL ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents?

A review of the relevant documents results, and the results of the Site inspection indicate that the remedy is functioning as intended by the ROD, that the revised IMMP will maintain the effectiveness of the response action, and access controls and ICs are generally adequate to prevent exposure.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. The exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy selection are still valid.

Changes in Standards and To be Considereds (TBC)

A list of the primary applicable or relevant and appropriate requirements (ARARs) and TBCs are included in **TABLE 7**. There have been no changes in these ARARs and TBCs that affect the protectiveness of the remedy.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

There have been no changes in the exposure assumptions that were used in the risk assessment that would affect the protectiveness of the remedy. EPA considers the assumptions in the baseline risk assessment to be conservative and reasonable in evaluating risk-based cleanup levels. No change to these assumptions or to the cleanup levels developed from them is warranted. There has been no change in the standardized risk assessment methodology that would affect the protectiveness of the remedy. Because the remedy implemented engineering and institutional controls to prevent contact with contaminants that remain at the Site, changes in contaminant toxicity would not impact the effectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No other events have affected the protectiveness of the remedy, and there is no other information that calls into question the protectiveness of the remedy.

Technical Assessment Summary

Based on a review of relevant documents, data, ARARs, risk assumptions, and the results of the Site inspection, it appears to EPA that the remedy is functioning as intended by the ROD. There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. The extent of slope instability will be determined through implementation of a Slope Investigation work plan, to ensure that this area will not affect future protectiveness. There have been no changes in exposure pathways or toxicity factors for the contaminants of concern which would impact the effectiveness of the remedy. The remedy is generally progressing as expected, and there is no other information available that calls into question the protectiveness of the remedy.

VIII. ISSUES

Table 8: Issues

Issue	Currently Affects Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Evidence of small animal burrows on the cap.	N	N
Slope instability facing Cemetery Creek.	N	Y
Warning signs on site fencing are faded.	N	N
Fabric privacy fencing has been partially removed.	N	N

IX. Recommendations and Follow-Up Actions

Table 9: Recommendations and Follow-up Actions

Issue	Recommendations / Follow-up Actions	Party Responsible	Oversight Agency	Mile-stone Date	Affects Protectiveness? (Y/N)	
					Current	Future
Animal burrows	Continue to identify and remove burrows	PRPs	EPA/ Ohio EPA	periodic	N	N
Slope instability	Implement Slope Investigation	PRPs	EPA/ Ohio EPA	9/30/04	N	Y
Warning signs faded	Placement of new warning signs	PRPs	EPA/ Ohio EPA	9/30/04	N	N
Fabric privacy fencing partially torn off	Remove or replace fabric privacy fencing, or replace with more permanent plastic privacy fencing.	PRPs	EPA/ Ohio EPA	9/30/04	N	N

X. Protectiveness Statement

The remedy at the Laskin/Poplar Oil Company Site is protective of human health and the environment because threats at the Site have been addressed through capping of contaminated soil, maintaining groundwater levels below the unweathered shale, installation of fencing and warning signs, and implementation of institutional controls.

XI. Next Review

The next Five-Year Review for the Laskin/Poplar Oil Company Superfund Site is required by June 2009, five years from the date of this review.

Tables and Figures

TABLE 2

Potential Contaminants of Concern at the Laskin Poplar Oil Site

Acetone	Gamma HCCH (Lindane)
Antimony	Heptachlor
Arsenic	Heptachlor Epoxide
Barium	Indeno(1,2,3-cd)pyrene
Benzene	Isophorone
Benzo(a)anthracene	Lead
Benzo(a)pyrene	Manganese
Benzo(b)fluoranthene	Mercury
Benzo(k)fluoranthene	Methylphenol (Cresol)
Beryllium	Methylene chloride
beta HCCH	4-Methyl-2-pentanone (MIBK)
Bis(2-chloroethyl)ether	Nickel
Bis(2-ethylhexyl)phthalate	N-Nitrosodiphenylamine
2-Butanone (MEK)	PCB
Cadmium	Pentachlorophenol
Carbon disulfide	Phenol
Chlordane	Selenium
Chlorobenzene	Silver
Chloroform	Styrene
Chromium	2,3,7,8-TCDD (Dioxin)
Chrysene	Tetrachloroethene
Copper	Thallium
DDT	Toluene
Dibenzo(a,h)anthracene	1,2,4-Trichlorobenzene
Dibutyl phthalate	1,1,1-Trichloroethane
1,1-Dichloroethane	1,1,2-Trichloroethane
1,2-Dichloroethane (EDC)	Trichloroethene
2,4-Dichlorophenol	Trichlorofluoromethane
Dieldrin	2,4,5-Trichlorophenol
Diethyl phthalate	2,4,6-Trichlorophenol
2,4-Dinitrophenol	Vanadium
Endosulfan	Vinyl chloride
Ethylbenzene	Xylenes
Cyanide	Zinc

(a) Potential chemicals of concern indentified based on availability of cancer potency factor, reference dose, drinking water criteria or standard, or environmental criteria.

TABLE 3

Inspection Schedule

Laskin/Poplar Oil Company Site
Jefferson, Ohio

Calendar Year	Inspection Period	Inspection Activity
1994 [1]	Monthly [2] 4th Quarter	Inspection and General Maintenance Inspection and General Maintenance
1995 [1]	1st Quarter 2nd Quarter 3rd Quarter 4th Quarter	Inspection and General Maintenance Inspection and General Maintenance Inspection and General Maintenance Inspection and General Maintenance
1996 [1]	2nd Quarter 4th Quarter	Inspection and General Maintenance Inspection and General Maintenance
1997 [1]	2nd Quarter 4th Quarter	Inspection and General Maintenance Inspection and General Maintenance
1998 [1]	2nd Quarter 4th Quarter	Inspection and General Maintenance Inspection and General Maintenance
1999 - to end [1]	(3)	Inspection and General Maintenance

[1] Once per year, inspections will be scheduled within two weeks following mowing of the site.

[2] Inspections will be done on a monthly basis through September 1994, and quarterly thereafter.

[3] Inspection and Maintenance will be conducted within two weeks of mowing of the site and during the fourth quarter. Maintenance procedures which require specialized personnel will be scheduled following the inspection, and follow-up to these activities will be performed at the next inspection.

TABLE 4

U.S. EPA APPROVED REVISED MONITORING SCHEDULE FOR THE LASKIN/POPLAR OIL SITE

MONITORING ACTIVITY	1994 IMMP SCHEDULE	APPROVED REVISED SCHEDULE
Water level measurement	Once per year	Once per year
Ground water and Cemetery Creek surface water sampling	Once per year	Within 120 days of detecting a water level in any one peizometer above the unweathered shale

TABLE 5

Recent Groundwater Elevation in Piezometers

Location ID	Date	Approximate Elevation of unweathered Shale (feet)	Depth to Water (feet)	Relative Well Elev. Top of casting (feet)	Relative GW Elev. (feet)
P-1	9-Aug-99	894.47	dry @ 26.94	917.41	dry @ 890.47
P-1	19-Nov-99	894.47	dry @ 26.94	917.41	dry @ 890.47
P-1	2-Aug-00	894.47	26.76	917.41	890.65
P-1	14-Nov-00	894.47	26.70	917.41	890.71
P-1	9-Aug-01	894.47	26.38	917.41	890.67
P-1	26-Dec-01	894.47	26.44	917.41	890.61
P-1	29-Aug-02	894.47	26.13	917.41	890.92
P-1	9-Dec-02	894.47	26.54	917.41	890.43
P-1	3-Sep-03	894.47	25.77	917.41	891.19
P-1	23-Dec-03	894.47	26.22	917.41	890.74
P-2	9-Aug-99	895.10	dry @ 36.67	931.52	dry @ 894.85
P-2	19-Nov-99	895.10	dry @ 36.67	931.52	dry @ 894.85
P-2	2-Aug-00	895.10	dry @ 36.67	931.52	dry @ 894.85
P-2	14-Nov-00	895.10	36.67	931.52	894.85
P-2	9-Aug-01	895.10	36.67	931.52	894.85
P-2	26-Dec-01	895.10	36.67	931.52	894.85
P-2	29-Aug-02	895.10	36.67	931.52	894.85
P-2	9-Dec-02	895.10	36.67	931.52	894.85
P-2	3-Sep-03	895.10	36.67	931.52	894.85
P-2	23-Dec-03	895.10	36.67	931.52	894.85
P-3	9-Aug-99	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	19-Nov-99	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	2-Aug-00	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	14-Nov-00	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	9-Aug-01	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	26-Dec-01	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	29-Aug-02	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	9-Dec-02	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	3-Sep-03	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	23-Dec-03	900.69	dry @ 21.00	920.69	dry @ 899.69

TABLE 6

GROUNDWATER ELEVATIONS IN PIEZOMETERS

SITE MONITORING SUMMARY
LASKIN/POPLAR OIL COMPANY SITE
JEFFERSON

Location ID	Date	Approx. Depth of Unweathered Shale (feet)	Depth to water (feet)	Relative Well Elev. Top of casing (feet)	Relative GW Elev. (feet)
P-1	22-Oct-93	894.47	25.55	917.41	891.86
P-1	30-Jun-94	894.47	25.94	917.41	891.47
P-1	26-Sep-94	894.47	26.15	917.41	891.26
P-1	04-Nov-94	894.47	26.50	917.41	890.91
P-1	24-Jan-95	894.47	26.25	917.41	891.16
P-1	13-Apr-95	894.47	26.15	917.41	891.26
P-1	20-Jul-95	894.47	26.10	917.41	891.31
P-1	06-Oct-95	894.47	26.13	917.41	891.28
P-1	17-Jan-96	894.47	25.88	917.41	891.53
P-1	24-Apr-96	894.47	dry @ 28.94	917.41	dry @ 888.47
P-1	15-Aug-96	894.47	dry @ 28.94	917.41	dry @ 888.47
P-1	07-Nov-96	894.47	dry @ 28.94	917.41	dry @ 888.47
P-1	03-Jun-97	894.47	dry @ 28.94	917.41	dry @ 888.47
P-1	28-Oct-97	894.47	dry @ 28.94	917.41	dry @ 888.47
P-1	01-Jun-98	894.47	dry @ 28.94	917.41	dry @ 888.47
P-2	22-Oct-93	895.10	dry @ 40.67	931.52	dry @ 890.85
P-2	30-Jun-94	895.10	38.09	931.52	893.43
P-2	26-Sep-94	895.10	38.60	931.52	892.92
P-2	04-Nov-94	895.10	38.60	931.52	892.92
P-2	24-Jan-95	895.10	38.40	931.52	893.12
P-2	13-Apr-95	895.10	37.55	931.52	893.97
P-2	20-Jul-95	895.10	38.30	931.52	893.22
P-2	06-Oct-95	895.10	38.38	931.52	893.14
P-2	17-Jan-96	895.10	38.32	931.52	893.20
P-2	24-Apr-96	895.10	dry @ 40.67	931.52	dry @ 890.85
P-2	15-Aug-96	895.10	dry @ 40.67	931.52	dry @ 890.85
P-2	07-Nov-96	895.10	dry @ 40.67	931.52	dry @ 890.85
P-2	03-Jun-97	895.10	dry @ 40.67	931.52	dry @ 890.85
P-2	28-Oct-97	895.10	dry @ 40.67	931.52	dry @ 890.85
P-2	01-Jun-98	895.10	dry @ 40.67	931.52	dry @ 890.85
P-3	22-Oct-93	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	30-Jun-94	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	26-Sep-94	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	04-Nov-94	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	24-Jan-95	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	13-Apr-95	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	20-Jul-95	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	06-Oct-95	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	17-Jan-96	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	24-Apr-96	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	15-Aug-96	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	07-Nov-96	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	03-Jun-97	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	28-Oct-97	900.69	dry @ 21.00	920.69	dry @ 899.69
P-3	01-Jun-98	900.69	dry @ 21.00	920.69	dry @ 899.69

TABLE 7

This section reviews the applicable or relevant and appropriate requirements (ARARs) for the Laskin/Poplar Oil site. The basis for ARARs is defined in Section 121(d) of CERCLA, as amended by SARA, which requires that remedial actions comply with all applicable or relevant and appropriate federal environmental or promulgated state environmental or facility siting laws.

The "applicable requirements," as defined in 40 Code of Federal Regulations (CFR) 300.5, are "those clean-up standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be applicable." "Relevant and appropriate requirements," also substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws, that, while not "applicable" to a hazardous substance, pollutant, contaminant. remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are identified in a timely manner and are more stringent than federal requirements may be relevant and appropriate."

In general, ARARs fall into three categories:

- Chemical-specific requirements: Chemical-specific ARARs specify maximum concentrations of particular chemicals in particular environmental media.

- Location-specific requirements: Location-specific ARARs specify restrictions that have been placed on the concentration of hazardous substances or on the conduct of an activity solely because it occurs in a special location.

- Performance, design or other action-specific requirements: Action-specific ARARs and remediation goals are identified for specific remedial actions.

The ARARs identified at the time that the ROD is signed exerts an enduring influence on the remedy. However, the ARARs are reconsidered to a limited extent during the five-year review.

ARARs in the ROD

Chemical-Specific ARARs

Groundwater: The ROD identified federal Maximum Contaminant Levels (MCLs). However, the ROD noted that MCLs will not apply to the completed remedy because the aquifer will be dewatered.

Surface Water: The ROD identified Ambient Water Quality Standards (AWQCs) along with Ohio Water Quality Standards (OWQS) and federal Water Quality Standards (40 CFR 131).

Soil: The ROD identified no chemical-specific ARARs for soil.

Sediment: The ROD identified no chemical-specific ARARs for sediment.

Location-Specific ARARs

The ROD identified the following location-specific ARARs: Flood Plains Executive Order 11980; Wetlands Executive Order 11990; 40 CFR 26418; Great Lakes Drainage Basin Clean Water Act Section 118.

Action-Specific ARARs:

The ROD identified the following action-specific ARARs:

Clean Air Act:

- Air pollution programs, Section 101
- Approval of Air Implementation Plans (40 CFR 52)
- Emissions Standards for Hazardous Air Pollutants (40 CFR 61)

Clean Water Act:

- Water Quality Standards (40 CFR 131)

RCRA:

- Closure Requirements (40 CFR 264.1, 73, 111, 117)
- Storage Containers (40 CFR 264.171-178)
- Storage Tank (40 CFR 264.191-198)
- Surface Impoundments (40 CFR 264.221, 226-228)
- Landfills (40 CFR 264.301-304, 310, 314)
- Incinerators (40 CFR 264.340-343, 351)
- Land Ban Regulations (40 CFR 268 Subpart C)

State of Ohio:

- Ohio Water Quality Standards (3745-01-03, 04, 05, 06, 07)
- Ohio Air Quality Standards (3745-15-06, 07; 3745-18; 3745-17-02, 05, 07, 08, 09; 3745-18-08; 3745-21-02, 03, 05, 07)
- Ohio Waste Disposal Regulations (3745-27-02, 05, 06, 07, 08, 09, 10)
- Ohio Hazardous Waste Regulations (3745-50 to 69)

POTENTIAL NEW ARARS

Chemical-Specific ARARs

Groundwater: The controlling ARAR for groundwater remains MCLs in the event

that dewatering is not successful . No new classes of ARARs for groundwater were identified.

Surface Water: The controlling ARARs for surface water remain AWQCs and Ohio Water Quality Standards. No new classes of ARARs for surface water were identified.

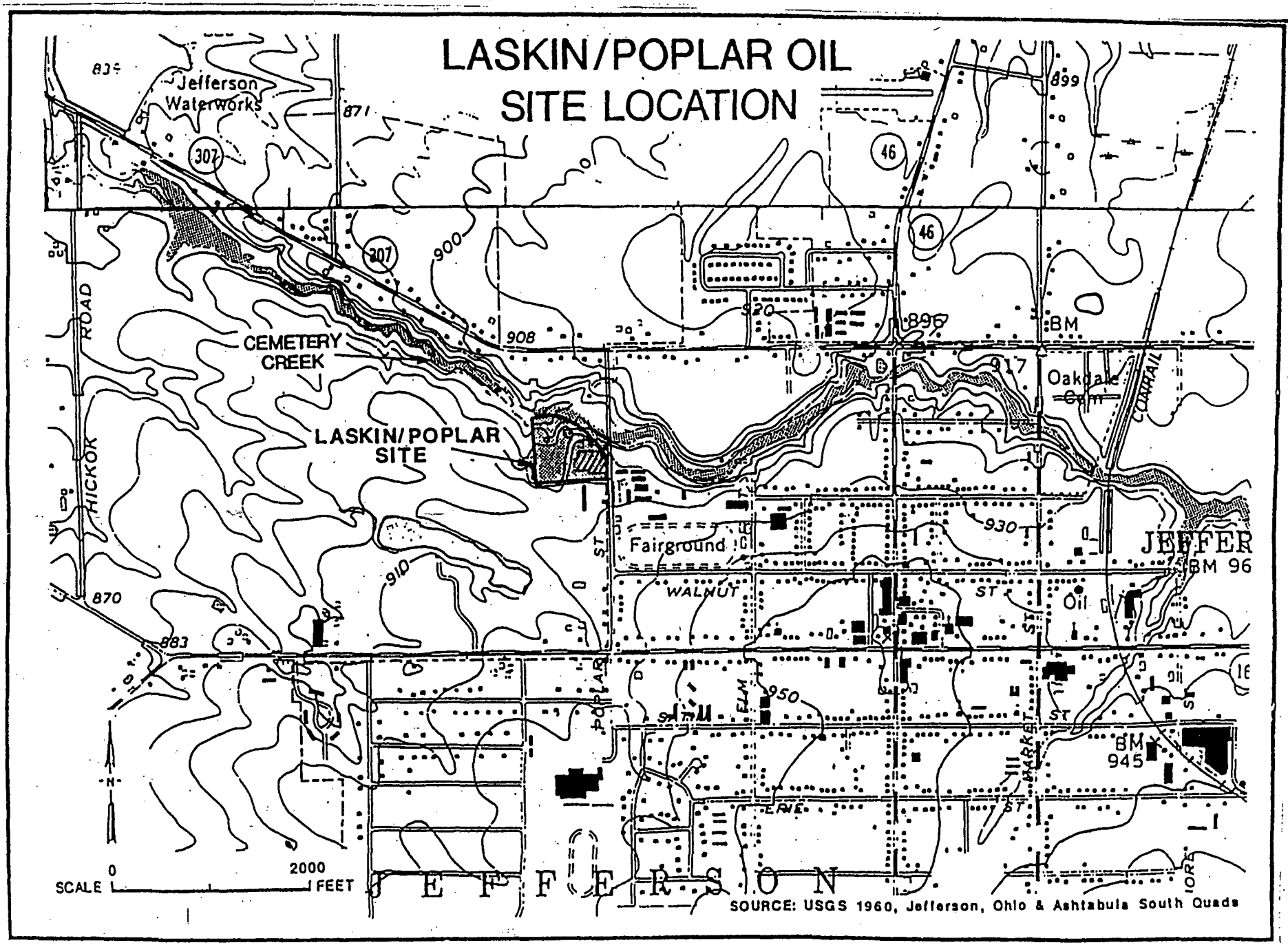
Location-Specific ARARs

No new classes of location-specific ARARs were identified.

Action-Specific ARARs

Action-specific ARARs were specified in the ROD for remedial actions previously performed. Because the five-year review does not include any remedial actions, existing action-specific ARARs do not apply and no new ARARs are identified.

FIGURE 1


LASKIN/POPLAR OIL
SITE LOCATION
Jefferson
Waterworks
CEMETERY
CREEK
LASKIN/POPLAR
SITE
HICKOK ROAD
Fairground
WALNUT
POPLAR
ELM
MARKET ST
ERIE
Oakdale
Cem
BM
945
BM 96
Oil
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N
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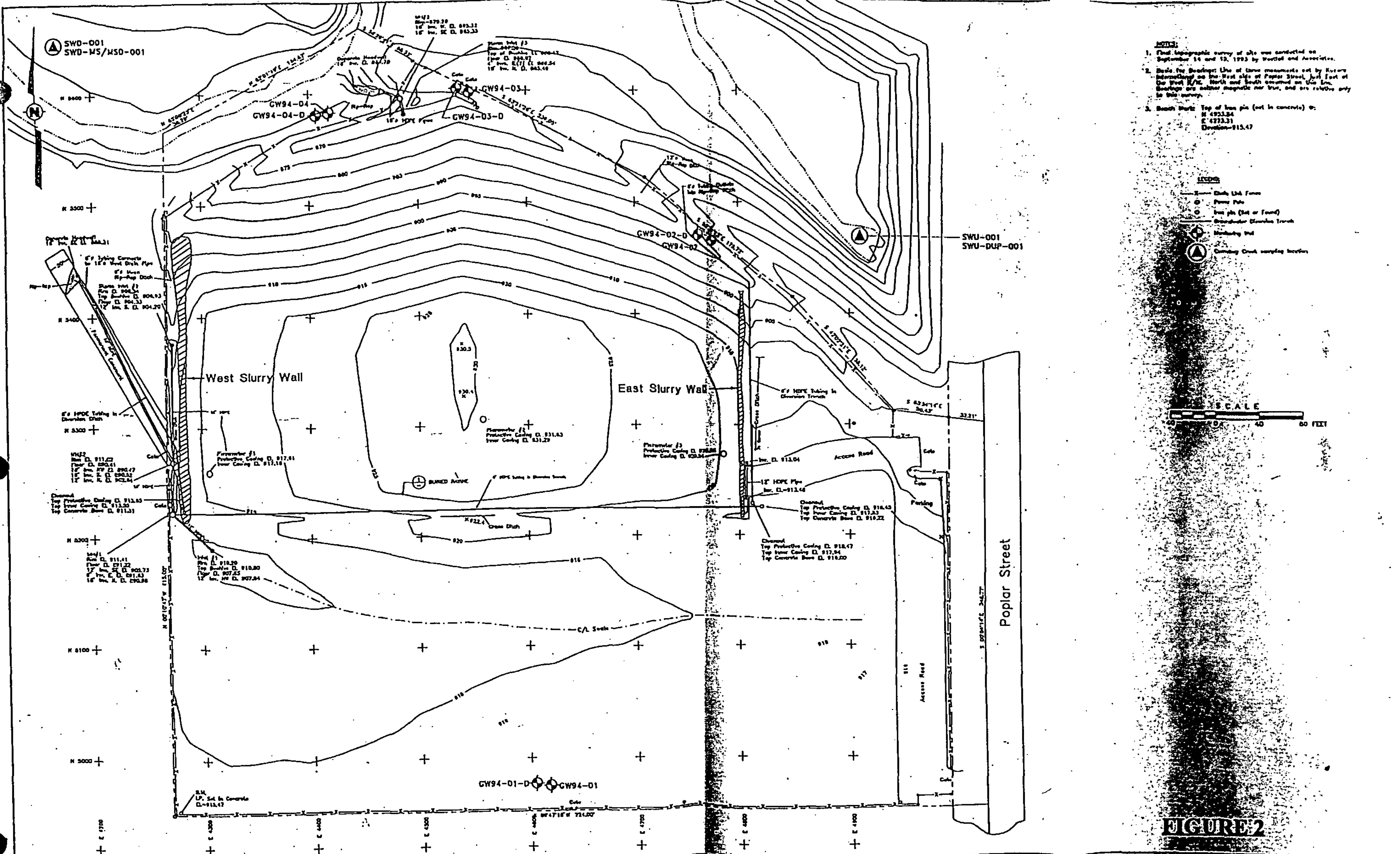
2000
SCALE
FEET
SOURCE: USGS 1960, Jefferson, Ohio & Ashtabula South Quads



				PROJECT NO. CL505	DATE
5				DESIGNED BY	
4				DRAWN BY	
3				CHECKED BY	
2				ENGINEER	
1				REGISTRATION NO. ______ DATE ______	
NO.	DATE	REVISIONS	BY		

ENGINEERING-SCIENCE

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OFFICES IN PRINCIPAL CITIES

ES

LASKIN/POPLAR OIL COMPANY SITE

JEFFERSON, ASHTABULA COUNTY, OHIO

GROUNDWATER AND SURFACE WATER MONITORING LOCATIONS

FINAL SITE PLAN

SCALE AS SHOWN

SHEET NO.

FILE NO.